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EXAMINER

BOYD, JENNIFER A

ART UNIT PAPER NUMBER

1771

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/945,342

Applicant(s)

LI ET AL.

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 - 8, 10 - 14 and 16 - 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 - 8, 10 - 14 and 16 - 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed September 23, 2004, have been entered and have been carefully considered. Claims 2 – 6, 8, 10 – 14 and 17 – 18 are amended, claims 1, 9 and 15 are cancelled, claims 19 – 28 are added and claims 2 – 8, 10 – 14 and 16 – 28 are pending. In view of Applicant's amendments, the Examiner withdraws the 35 USC 112, 2<sup>nd</sup> paragraph rejection of claims 1 – 8 as detailed in paragraphs 4 – 5 of the Office Action dated December 1, 2003. In view of Applicant's amendments, the Examiner withdraws the previously set forth rejections as detailed in paragraphs 6 – 9 of the previous Office Action dated December 1, 2004. It should be noted below that the Examiner has maintained the same art for the rejection of claims 2 – 8, 10 – 14 and 16 – 18. After a search for new claims 19 – 28, the Examiner has found additional prior art to render the invention as currently claimed unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

3. Claims 19 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanzer et al. (US 6,429,350).

Tanzer is directed to an absorbent article having superabsorbent pockets in a non-absorbent carrier layer (Title).

As to claim 19, Tanzer teaches an absorbent article comprising a liquid permeable top layer, an inner surge layer and a substantially liquid-impermeable outer cover (Abstract). Tanzer teaches that the surge layer comprises a plurality of pockets which can contain a quantity of superabsorbent material (column 4, lines 5 – 20). The Examiner equates the surge layer to Applicant's "absorbent layer". Tanzer teaches that the superabsorbents can include FAVOR 880 and DRYTECH 2035LD (column 5, lines 15 – 25), known in the art to be acidic superabsorbent polymers. Tanzer teaches that most preferably at least 90% of the pockets contain superabsorbent polymers (column 5, lines 45 – 50). Tanzer teaches that the pockets are filled with superabsorbent polymers and then an adhesive can be sprayed over the pocket layer material (column 7, lines 63 – 67). Tanzer teaches that the other layers of the absorbent article can be combined with the pocketed layer material and bonded together using an adhesive (column 8, lines 1 – 5). It should be noted that the sprayed adhesive will connect the pockets containing only superabsorbent polymers and the remainder of the surge layer to the top layer and outer cover. Therefore, the Examiner equates the application of adhesive to Applicant's "super absorbent polymer directly adhered to the bottom sheet". Tanzer teaches that the diaper comprising the absorbent composite has fastening tapes 28 which are attached to the outer cover 12 (column 3, lines 49 – 51). See Figure 2. The fastening tapes would provide Applicant's required attachment to a surface preventing the pad from being removed from the surface.

As to claim 20, Tanzer teaches that a portion of the pockets can comprise odor absorbent materials (column 5, lines 45 – 50).

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4. Claims 2 – 5, 8, 10 – 13, 18 and 24 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forbes et al. (US 6,491,933) in view of McKinney et al. (US 5,433,994).

Forbes is directed to an absorbent pouch (Title).

As to claims 5, 13 and 19, Forbes teaches a continuous chain of connected absorbent pouches comprising a first panel, a second panel and a super-absorbent material (Abstract). The first and the second panel are attached along their respective general peripheries so as to form a space therebetween and the space therebetween comprises a super-absorbent material (Abstract). In one embodiment, Forbes teaches that the pouch comprises a first panel made from an impermeable material and a second panel having a large plurality of pore perforations (column 5, lines 29 – 36). The Examiner equates the first panel to Applicant's "liquid impermeable back sheet" and the second panel to Applicant's "liquid permeable top sheet". Forbes teaches that the super-absorbent material may be adhered with an adhesive to the first panel, or "liquid impermeable back sheet", **and/or** the second panel, or "liquid permeable top sheet" (column 5, lines 10 – 15). Forbes notes that the space between the two panels is absent of tissue paper, fibrous material and other material (column 5, lines 1 – 10); the super-absorbent material is the only material in the space unless adhesive is used. Forbes teaches that the manufacturing process may result in the continuous chain of connected absorbent pouches being wound in a roll (column 7, lines 55 – 60). As to claim 9, it should be noted that the Examiner considers the phrase "selectively separable from one another" to be a "capable of" type limitation. It has been held that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Forbes teaches that the chain of connected absorbent pouches is

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severed at selected lengths (column 8, lines 1 – 5), therefore, the user can select where to separate the pouches making it Applicant's "selectively separable". Forbes teaches that the pouch is attached to a tray 50 by a suitable adhesive (column 6, lines 10 – 15 and Figure 5) as required by claim 19.

As to claim 2, 10 and 24, Forbes teaches that the second panel, or "liquid permeable top sheet", can be made from a variety of materials including open-celled foams, perforated films, woven and nonwoven materials (column 3, lines 15 – 20).

As to claims 3, 11 and 25, Forbes teaches that the first panel, or "liquid impermeable back sheet", can be made from a variety of materials including liquid impermeable films such as those made from polyethylene or polypropylene (column 3, lines 27 – 39).

As to claims 4, 12 and 26, Forbes teaches that the super-absorbent material may be crosslinked polyacrylates, such as FAVOR-PAC<sup>TM</sup> 100 (column 4, lines 43 – 50).

As to claims 8 and 18, Forbes teaches that the pouch has a thickness of generally 5 to about 200 mil (0.005 – 0.2 inches) (column 6, lines 52 – 55).

Forbes teaches the claimed invention above except for that the super absorbent polymer can be acidic as required by claims 5, 13 and 19.

McKinney discloses a super absorbent structure with a permeable covering, super absorbent particles and impermeable adhesive layer (column 1, lines 50 – 67). The super absorbent particles suitable for the application include starch modified polyacrylic acids (column 2, lines 50 – 60).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the conventional acidic super absorbent particle of McKinney in the product of Forbes motivated by the desire to use a widely available super absorbent particle which is chemically compatible with the absorbent product.

5. Claims 17, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forbes et al. (US 6,491,933) in view of McKinney et al. (US 5,433,994), as applied above, further in view of Chen et al. (US 2001/0023159).

Forbes teaches that the chain of connected absorbent pouches is severed at selected lengths (column 8, lines 1 – 5), therefore, the user can select where to separate the pouches making it Applicant's "selectively separable". Forbes teaches that the manufacturing process may result in the continuous chain of connected absorbent pouches being wound in a roll (column 7, lines 55 – 60).

Forbes in view of McKinney teach the claimed invention above but fails to disclose that the pads each have a plurality of edges wherein at least one of the edges of each of the pads is defined by a transverse score line located at the edge along which the pads are selectively separable from another at a pre-designated location as required by claim 17. Forbes in view of McKinney fail to teach that the pad is attached to one or more pads by at least one perforated edge, wherein said attached pads together form a set as required by claim 27.

Chen is directed to an absorbent pad (Title) suitable for the absorption of liquids from foods (page 1, [0001]). Chen teaches that the absorbent pad has an upper porous film layer, a lower non-porous film layer and an intermediate absorbent layer (page 2, [0018 – 0021]). Chen

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teaches that the pads may be formed as individual absorbent pads or into an elongated absorbent pad strip (page 3, [0027]). Chen teaches that the pad strip may be separated transversely thereof into discrete units with each units forming an individual absorbent pad or by cutting from the strip or perforation lines may be placed between individual pads on a continuous roll used to form the absorbent pads as needed (page 3, [0027]). It should be noted that the elongated absorbent pad strip is equated to Applicant's "attached pad set".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the roll of pads of Forbes in view of McKinney with transverse perforation lines at pre-designated locations as suggested by Chen motivated by the desire to easily separate the amount of pads as needed from a roll of pads.

6. Claims 6 – 7, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forbes et al. (US 6,491,933) in view of McKinney et al. (US 5,433,994), as applied above, further in view of Ahmed et al. (US 6,534,572).

Forbes in view of McKinney teaches that the super-absorbent material may be adhered to the first and/or second panel with an adhesive.

Forbes in view of McKinney fails to disclose that the adhesive is selected from the group consisting of organic adhesives, vegetable adhesives and synthetic adhesives as required by claims 6 and 14. Forbes in view of McKinney fails to teach that the synthetic adhesive is selected from the group consisting of thermosetting adhesives, thermoplastic adhesives and elastomeric adhesives as required by claims 7 and 16.



Ahmed et al. is directed to a composition comprising a thermoplastic component and at least one superabsorbent component useful for disposable absorbent articles (Abstract). Ahmed teaches that the thermoplastic component may be a hot melt adhesive comprising a thermoplastic polymer (column 5, lines 45 – 50). It should be noted that a thermoplastic hot melt adhesive is a synthetic adhesive. Ahmed notes that the presence of a thermoplastic component actually enhances the performance of the superabsorbent polymer, particularly for reducing unintended gel blocking (column 3, lines 40 – 45).

It would have been obvious and necessary for one of ordinary skill in the art practicing the invention of Forbes in view of McKinney to provide the details of the adhesive. As the use of thermoplastic adhesives enhances the performance of superabsorbent polymers by reducing gel blocking in absorbent composites, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the thermoplastic hot melt adhesive of Ahmed in the invention of Forbes in view of McKinney, motivated by the expectation of successfully practicing the invention of Forbes in view of McKinney.

7. Claims 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanzer et al. (US 6,429,350) in view of Kaiser et al. (US 5,919,440).

Tanzer teaches the claimed invention above but fails to disclose that the absorbent composite for a diaper can additionally contain an attractant as required by claim 21, or specifically a musk or xylene as required by claim 22.

Kaiser is directed to personal care compositions containing an odor masking base (Title). Kaiser notes that personal care products such as diapers contain perfumes which help provide a

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pleasant fragrance during or after application of the product or which otherwise help to hide or mask malodors associated with the use of such products (column 1, lines 10 – 20). Kaiser teaches that the personal care composition comprises a malodorous liquid carrier and/or a malodorous polymer and an odor masking base (column 2, lines 15 – 20). Kaiser teaches that the odor masking base is a select combination of ionone perfume, musk and a highly volatile perfume (column 2, lines 23 – 30). Kaiser teaches that the select combination of perfume chemicals in the odor masking base effectively helps to mask malodors associated with personal care compositions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an attractant such as musk as suggested by Kaiser in the absorbent composite structure of Tanzer motivated by the desire to effectively help mask malodors associated with use of products such as diapers.

### ***Response to Arguments***

8. Applicant's arguments filed September 23, 2004 have been fully considered but they are not persuasive.

9. In response to Applicant's arguments that Forbes does not teach or suggest the combination with acidic superabsorbent polymers taught by McKinney, the Examiner respectfully argues the contrary. In regards to Applicant's first argument, the Examiner submits that the Applicant's arguments cannot be used as evidence. The Applicant discusses that the superabsorbent polymers (SAPs) of Forbes would need to be something other than acidic in order to accomplish both acid neutralization and fluid absorption. Forbes does not disclose the

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need for acid neutralization and does not teach that that acidic SAPs would be unsuitable for the absorbent food pouches. It is suggested that the Applicant provide third party evidence to establish that acidic SAPs would not be suitable for the absorbent pouches of Forbes. In regards to Applicant's second argument, it should be noted that the McKinney reference was used as a secondary reference to provide motivation to incorporate acidic SAPs into the pouches of Forbes. The Examiner submits that the number of layers and the composition of the layers in the invention of McKinney is irrelevant to the rejection.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
December 4, 2004

  
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